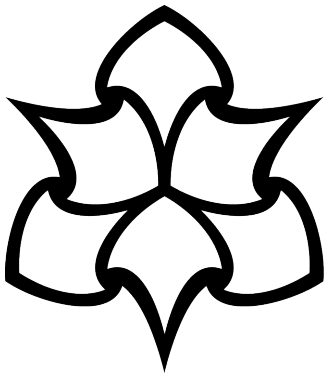

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INFLUENCE OF CULTURE AND MANAGEMENT SYSTEMS ON PMS

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Abstract Title: Influence of culture and management systems on PMS.

Purpose: The aim of this study is to find and explore the relationships between organizational culture, management Systems and the implementation and Operationalisation aspects of Performance Measurement Systems (PMS).

Design/methodology/approach: The relevant literature on organizational culture, Organizational behavior, Strategic management and management accounting, in the context

of performance measurement systems, will be examined. A structured questionnaire will be used to survey the views of the top management teams of a suitable sample of organizations. The survey implementation process will follow four steps: pre-notification, initial mailing, first follow up and, second follow up.

Findings: As this is a developmental paper, it is not possible to provide definite findings at this point. However, it is anticipated to find out relationship between Culture, Management systems and PMS.

Practical implications: The findings of this study will provide managers with better understanding of the relationship between organizational culture, management systems and PMS. This will in turn help them to provide a successful PMS.

Originality/value: No research has been done to find out the relationship between organizational culture, management systems and two aspects of PMS, namely implementation and operationalisation aspects, using a large-scale sample approach. The findings of this research therefore will provide useful insights and methods for future researchers in this area.

Keywords: Performance measurement system (PMS), Culture, Management System.

Paper Type: Conceptual Paper (Developmental paper)

Introduction

Today's business environment is changing rapidly. In order to survive, organisations need to be able to evaluate the status of their operation. Organisations need to have clear goals and also operate with increasing levels of efficiency and effectiveness. Performance Measurement Systems (PMSs) are key to achieving these aspirations.

Several authors suggest that the performance of businesses increases if they are managed using formalised, balanced and integrated performance measures (Hoque and James, 2000; Davis and Albright, 2004). Others (Neely et al, 2004; Ittner et al, 2003) argue for the converse case; the performance of a business does not change because of the use of PMS. On the other hand, Braam and Nijssen (2004), argue that the impact of performance measurement is contingent upon the way it is used. Bititci et al (2006) state that organisational culture and management styles influence the way that PMS are implemented and applied.

Little research has been done on the influence of organizational culture and management system on the effectiveness of PMS. Bititci et al, (2006) undertook action research in five organisations in order to establish the dynamic relationships between organisational culture, management style and PMS. They found that a dynamic and bi-directional relationship exists between culture, management styles and PMS. Bititci et al, (2006) suggested additional research on a broader scale was required to develop a robust understanding between these three attributes of an organisation, but since then no research in this regard has been undertaken. The research described here aims to fill this gap by surveying a large number of organisations. It aims to identify the relationship between organisational culture, management systems and two aspects of PMS; implementation and operationalisation. It will build on previous research on PMS by examining how it is influenced by organisational culture and management systems.

Literature review

Lifecycle of PMS

Bourne et al (2000) presented a three-stage model for the lifecycle of PMS. These three stages are; design, implementation and use and update. These stages are discussed below.

Designing PMS

According to Bourne et al (2000), this stage includes identifying the key objectives to be measured and designing the measures themselves. This stage is concerned with two questions – 'what to measure?' and 'how to structure the PMS?'

Many frameworks have been developed in order to design PMS. Some of the popular models and frameworks are - Balanced Scorecard (BSC) (Kaplan & Norton, 1992; Kaplan & Norton, 1996 and Kaplan & Norton, 2001), EFQM Business Excellence Model (EFQM, 1999), Performance Prism (PP) (Neely & Adams, 2001) etc.

Implementing PMS

Bourne et al (2000) argue that in the implementation phase systems and procedures are put in place in order to gather and process the data that enable the measurements to be made regularly. He states that this phase may involve computer programming to capture existing data in an organisation, collating it into a more meaningful form.

According to Schneiderman (1999), many companies' performance measures are poorly defined, thus creating misunderstanding between different staff members. To avoid such misunderstandings, Bourne and Wilcox (1998) and Neely et al (1996) advised that for each indicator a performance measure record sheet should be used to document its definition. After capturing the information about each measure, four tasks are required; data creation, data collection, data analysis and information distribution (Kennerley and Neely, 2003; Marr and Neely, 2002; Nudurupati and Bititci, 2005).

Using and updating PMS

This is the operationalisation stage. This stage has two purposes (Bourne et al, 2000). The first is to evaluate the success of the implementation of the strategy as the measures are derived from strategy (Kaplan and Norton, 1996; Vitale and Mavrinac, 1995). The second is to use the information and feedback from the measures to challenge the assumptions and test the validity of the strategy (Eccles and Pyburn, 1992; Kaplan and Norton, 1996; Feurer and Chaharbaghi, 1995).

Success depends on how people behave in using this performance information (Davenport, 1997; Eccles, 1991; Hill, Koelling, & Kurstedt, 1993; Prahalad & Krishnan, 2002). People's behaviour in interpreting information is the main reason some PMS are short-lived (Bititci et.al, 2002 and Marchand et.al, 2000).

Culture and Performance measurement systems

In the performance measurement literature, several authors have argued that organisational culture and management styles influence the success or failure of PMS implementations. Nudurupati (2003) explained that performance measurement can impact the way management behaves. According to Bourne et al, (2002) for example, a "paternalistic culture" can lead to a successful PMS implementation. Franco and Bourne (2003) argue having an appropriate organisational culture is a prerequisite for success.

Several researchers recognise that culture guides and shapes the behaviour and attitude of all employees (Burnes et al, 2003; Handy, 1985; Hofstede, 1980; O'Reilly and Chatman, 1996; Schein, 1985). Many studies have been undertaken in order to identify the effect of organisational culture on business performance (Denison, 1990; and Gordon and DiTomaso, 1992), but recent studies suggest that this relationship is not yet fully understood (e.g., Wang and Ahmed, 2003).

Since Bititci et al., (1997) classify PMS as an MIS as well as a Management Control System (MCS), it is possible to relate the literature of MIS and MCS in order to understand the relationship between organisational culture and performance measurement.
Organisational culture is an influential factor in the acquisition and development of MIS (Allard, 1998; Brown and Starkey, 1994; Gordon and Gordon, 1992; Katz and Townsend, 2000; Thompson and Wildavsky, 1986; Tolsby, 1998).Other researchers studied how MIS influences organisational culture (Boland et al., 1994; Hibbard, 1998; Newman and Chaharbaghi, 1998; Robey and Azevedo, 1994). All of these studies indicate there is a relationship between MIS and organisational culture. Avison and Myers, (1995) and Claver et al (2001) focused their research on this relationship. They identified that organisational culture needs to be understood and should be manipulated to support the implementation of MIS through cultural change programmes.

In the MCS literature, there is greater focus on national rather than organisational culture when attempting to understand the links between MCS and culture. Harrison and McKinnon (1999) examined a large variety of MCS and organisational characteristics, but were unable to find enough confirmatory work to draw definitive conclusions. According to Chenhall (2003), there is only one general proposition on the relationship between culture and MCS, "national culture is associated with the design of management control systems". Hence, there is a need for research to understand the relationship between MCS and organisational culture.

Management Systems and Performance Measurement Systems:

Performance measurement implementation fails in many companies because of lack of Information Technology (IT) support (Bierbusse and Siesfeld 1998; Bititci et al. 2000; Bourne et al. 2000; and Neely 1999). Hence, IT is a critical success factor for PMS implementation. Nudurupati and Bititci (2005) provide evidence that appropriately designed PMS, with the support of appropriate IT platforms, appropriately implemented and used with senior management commitment, will allow the identification of weaknesses of businesses, enable proactive decision-making and continuous improvement, improve transparency and visibility and engender the positive behaviour of people. They emphasise the importance of integration and automation of data collection and analysis. They also emphasise the importance of data accuracy. Meekings (1995) argues that the successful implementation of

performance measurement depends less on selecting the right measures and more on the way the measures are implemented and used by the people. The real key to success lies in how people use this performance information (Prahalad and Krishnan 2002, Davenport 1997, Eccles 1991). Many researchers believe that the main reason many PMS are short-lived is because of people's use of the information (Bititci et al. 2002, Marchand et al. 2000). According to Marchand & Raymond (2008), with the evolution of information technologies (including the web) PMS can be enriched with new functionalities which provide enhanced support for organisational decision making.

MIS and change management are influential throughout the PMS lifecycle. Nudurupati et al, (2010) state that the MIS have only a very limited influence on the design of PMS. According to Lewin (1947), however, resistance to change due to PMS does exist in the design stage. Senior management commitment is required in mitigating and overcoming this resistance. According to Bititci et al (2002), senior managers should communicate the potential benefits of PMS in order to elicit support.

Nudurupati et al, (2010) state that MIS and change management is significant in implementation stage of PMS. Implementation of PMS involves data creation, collection, analysis and distribution activities. In order to implement the measures successfully, significant effort and commitment are required at every level of the process; capturing, collecting, analysing and reporting performance measurement information. Bititci et al, (2002) state that people whose interests would be compromised by the existence of effective PMS naturally resist its implementation. According to Meekings (1995), in most companies there are people who believe they are threatened and this will always create some resistance to performance measurement. Bititci et al, (2006) and Dunphy and Stace (1990) recommend that this situation should be handled by senior management. They also argue that depending on their organisational culture, managers should utilise different management styles to influence people's behaviour in order to mitigate such resistance.

The need for MIS support is limited in the use stage of PMS. In order to review and update the measures, however, MIS support can be required. For this reason, Nudurupati et al (2010) state that in the use and update stage of PMS, a moderate level of MIS support is required. However, they believe that the change management influences people significantly in applying and updating PMS. According to Nudurupati et al (2010), resistance continues to build in people during the stage of using performance measures. Lewin (1947, 1951) argues that the extent of this build-up of resistance will depend on how well the senior management tackled it at previous stages. Bititci et al, (2006) state that most companies gradually overcome the initial resistance through senior management taking the initiative in the project. In addition, they also state that using an open and non-threatening management style helps companies to overcome the initial resistance.

Several studies have been undertaken to establish whether top management support impacts on PMS effectiveness (Bourne, 2005; Bourne et al, 2002; Chan, 2004; Kennerley and Neely, 2002). Bourne et al (2002) found that top management support plays an important role in the successful implementation and on-going usage of a new PMS. They also indicate that constant participation by top management is very important to resolve problems when crises and conflicts arise. According to Chan (2004) and Emerson (2002), top management commitment and leadership are key success factors for PMS.

Kennerley and Neely (2002) also state that top-level management support is critical for PMS implementation success. Nudurupati and Bititci (2005) state that drive and commitment from senior managers are important factors in improving business performance.

The importance of training in relation to the development and implementation of a successful PMS is highlighted in a number of studies. Nudurupati and Bititci (2005) and Chan (2004) both argue state that training people is necessary for the successful implementation of PMS. Cavaluzzo and Ittner (2004, p. 249), identified that properly trained managers can positively influence performance measurement development and outcomes. All performance measures should have a clearly communicated purpose. These clearly communicated, relevant and reliable measures provide managers with useful information for decision making. It is possible that untrained managers will not understand the importance of the PMS measures and overlook these measures when making decisions. Likewise, Emerson (2002) identified training as the key for useful and effective PMS. He states that training allows users to understand performance measurement concepts and principles. Training enables both employees and managers to operate the system. Therefore, the better those users understand the purpose of the system and how to operationalise it, the more likely they will be to commit to it, thereby increasing the likelihood of a positive outcome.

Many studies have been undertaken to identify the importance and benefits of employee empowerment (Chiles and Zorn, 1995; Koberg et al, 1999; Morrell and Wilkinson, 2002; Nudurupati and Bititci 2005) and employee involvement and participation (Cox et al., 2007, 2006; Pun et al., 2001; Wimalasiri and Kouzmin, 2000) for a successful PMS. Several studies suggest that high levels of employee participation have a positive influence on the effectiveness of PMS (Chan, 2004 and Kaplan and Norton, 2001). According to Kleingeld et al. (2004) employees with high levels of participation perform significantly better than those who participate less.

From the literature it is understood that managing IT is very important for the implementation of PMS. Not enough research has been done to find out the impact of IT management on operationalisation of PMS. This research will investigate the impact of IT management on both implementation and operationalisation stages of PMS.

No research has been undertaken that includes culture, management systems and the implementation and operationasitation aspects of PMS. The research planned by the authors' aims to fill this gap. In addition, most of the previous studies have applied a case study or action research approach and thus were exploratory in nature. Thus there is a need for empirical evidence derived from a large scale data collection programme.

Methodology:

Data Collection and analysis:

A survey method will be adopted. In particular, an online survey questionnaire will be used. This approach will allow a large, geographically dispersed sample to be accessed. The online survey will be administered using Qualtrics.

Questionnaire construction:

Unlike other data collection methods, questionnaires provide the researcher with only one opportunity to gather the data. It is difficult and time consuming to return to the respondents to collect additional information once they have completed and returned the questionnaire. Thus, to ensure that the relevant questions are asked, significant time and effort will be devoted to the construction and pre-testing of the questionnaire.

Responses of the survey will be coded and analysed through SPSS software.

Findings:

As this is a developmental paper, it is not possible to provide definite findings at this point. However, it is anticipated that this project will contribute to our understanding of the nature and extent of the influence of culture and management style on PMS.

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